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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/478,198	01/05/2000	Yoshiyasu Inoue	Q57471	1379

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EXAMINER

SANTIAGO, MARICELI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/478,198

Applicant(s)

INOUE, YOSHIYASU

Examiner

Mariceli Santiago

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 72-75 and 77-82 is/are allowed.
- 6) ☒ Claim(s) 1-71 and 76 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4,5
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Objections

Claims 9, 21, 32, 33, 45, 57 and 69 are objected to because of the following informalities:

Claims 9, 21, 33, 45, 57 and 69 recite the limitation "further comprising the step (f)", the recitation is objectionable since the preceding base claim does not recite a previous step (e). Appropriate correction is required.

Claim 32 recite the limitation "further comprising the step (e)", the recitation is objectionable since the preceding base claim does not recite a previous step (e). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-11, 14-23, 27-35, 39-47, 50-59, 63-71 and 76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 3, 6, 15, 18, 27, 39, 42, 51, 54, 63, 66 and 76, claims 3, 6, 15, 18, 27, 30, 39, 42, 51, 54, 63, 66 and 76 recite the limitations "a first cassette" and "a second cassette", these limitations render the claims indefinite, since the base claims recites the same elements. Where a claim directed to a device can be read to include the same element twice, it is considered indefinite. *Ex parte Kristensen*, 10 USPQ2d 1701 (Bd. Pat. App. & Inter. 1989).

Claims 4-11 are rejected for the reasons stated in the rejection of claim 3 above, because of their dependency status from claim 3.

Art Unit: 2879

Claims 40-47 are rejected for the reasons stated in the rejection of claim 39 above, because of their dependency status from claim 39.

Claims 64-71 are rejected for the reasons stated in the rejection of claim 63 above, because of their dependency status from claim 63.

Claims 3, 27, 39 and 63 recite the limitation of "(a) upwardly taking a display panel out of a first cassette... (c) laterally transferring said display panel from a position above said first cassette to a position above a second cassette", the recitation renders the claims indefinite since it contradicts the recitation stated in the preceding base claim wherein the relocation step is performed from a second cassette used in the second step into a first cassette used in the first step.

Claims 14 and 50 recite the limitation of "relocating display panels into a first cassette used in said first step from a second cassette used in said second step", the recitation renders the claims indefinite since it contradicts the recitation stated in the preceding base claim wherein the second step is carried out immediately after the first step.

Claims 15-23 are rejected for the reasons stated in the rejection of claim 14 above, because of their dependency status from claim 14.

Claims 51-59 are rejected for the reasons stated in the rejection of claim 50 above, because of their dependency status from claim 50.

Claims 28-30 recite the limitation "wherein said step (a) further includes" in line 1. There is insufficient antecedent basis for this limitation in the claims.

Claim 30 recites the limitation "wherein said step (d) further includes" in line 7. There is insufficient antecedent basis for this limitation in the claims.

Claim 32 recites the limitation "said second cassette" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2879

Claim 32 recites the limitation "said step (d)" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "said first cassette" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "said step (a)" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 34 recites the limitation "said first and second cassettes" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 31 and 35 are rejected for the reasons stated in the rejection of claims 30 and 34, respectively, because of their dependency status from claims 30 and 34.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 12-14, 24-26, 36-38, 48-50, 60-62 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over von Gutfeld et al. (US 6,181,408).

Regarding claims 1 and 2, von Gutfeld discloses a method of fabricating a display panel, comprising a first step and a second step which is to be carried out immediately before the first step, the first step taking longer time to be carried out per a display panel than that of the second step, the first step including a relocation step of relocating display panels into a first cassette used in the first step from a second cassette used in the second step, and the first step comprising a plurality of display devices. Von Gutfeld is silent regarding the limitation of the

Art Unit: 2879

number of display panels to be processed in the first step being greater than the number of displays panels to be processed in the second step. However, it would be considered to be a matter of design choice to provide the number of display panels to be processed in the first step greater than for the second step, in order to maintain a continuous production without shutting down one operation for an excessive period of time, for such reason, merely increasing the number of displays panels during the longest manufacturing step would be an obvious method to achieve this result.

Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to provide a greater amount of display devices in the first step than in the second step in order to maintain a continuous production without shutting down one operation for an excessive period of time, for such reason, merely increasing the number of displays panels during the longest manufacturing step would be an obvious method to achieve this result.

Regarding claims 37 and 38, claims 37 and 38 are rejected for the same reasons stated above in the rejection of claims 1 and 2.

Regarding claims 13 and 14, von Gutfeld discloses a method of fabricating a display panel, comprising a first step and a second step which is to be carried out immediately after the first step, the first step taking longer time to be carried out per a display panel than that of the second step, the first step including a relocation step of relocating display panels into a first cassette used in the first step from a second cassette used in the second step, and the first step comprising a plurality of display devices. Von Gutfeld is silent regarding the limitation of the number of display panels to be processed in the first step being greater than the number of displays panels to be processed in the second step. However, it would be considered to be a matter of design choice to provide the number of display panels to be processed in the first step

Art Unit: 2879

greater than for the second step, in order to maintain a continuous production without shutting down one operation for an excessive period of time, for such reason, merely increasing the number of displays panels during the longest manufacturing step would be an obvious method to achieve this result.

Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to provide a greater amount of display devices in the first step than in the second step in order to maintain a continuous production without shutting down one operation for an excessive period of time, for such reason, merely increasing the number of displays panels during the longest manufacturing step would be an obvious method to achieve this result.

Regarding claims 49 and 50, claims 49 and 50 are rejected for the same reasons stated above in the rejection of claims 13 and 14.

Regarding claims 25 and 26, von Gutfeld discloses a method of fabricating a display panel, comprising a first step, a second step which is to be carried out immediately before the first step, and a third step which is to be carried out immediately after the first step, the first step taking longer time to be carried out per a display panel than those of the second and third steps, the first step including a relocation step of relocating display panels into a first cassette used in the first step from a second cassette used in the second step and a second relocation step of relocating display panels from the first cassette into a third cassette used in the third step, and the first step comprising a plurality of display devices. Von Gutfeld is silent regarding the limitation of the number of display panels to be processed in the first step being greater than the number of displays panels to be processed in the second and third steps. However, it would be considered to be a matter of design choice to provide the number of display panels to be processed in the first step greater than for the second and third steps, in order to maintain a

Art Unit: 2879

continuous production without shutting down one operation for an excessive period of time, for such reason, merely increasing the number of displays panels during the longest manufacturing step would be an obvious method to achieve this result.

Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to provide a greater amount of display devices in the first step than in the second and third steps in order to maintain a continuous production without shutting down one operation for an excessive period of time, for such reason, merely increasing the number of displays panels during the longest manufacturing step would be an obvious method to achieve this result.

Regarding claims 61 and 62, claims 61 and 62 are rejected for the same reasons stated above in the rejection of claims 25 and 26.

Regarding claims 12, 24, 36, 48, 60 and 72, von Gutfeld discloses a method wherein the first step is a step of introducing liquid crystal into a space formed between two substrates.

Allowable Subject Matter

Claims 73-75 and 77-82 are allowed.

Claims 3-11, 15-23, 27-35, 39-47, 51-59 and 63-71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3-11, 15-23, 27-35, 39-47, 51-59, 63-71 and 76 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Art Unit: 2879

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 3, 15, 27, 39, 51, 63 and 73, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 3, 15, 27, 39, 51, 63 and 73, and specifically comprising the limitation of including the steps of:

(a) upwardly taking a display panel out of a first cassette in which display panels are stored, with said display panel being supported at upper and lower edges thereof,

(b) supporting said display panel taken out of said first cassette, at lower and side edges thereof

(c) laterally transferring said display panel from a position above said first cassette to a position above a second cassette, and

(d) supporting said display panel at upper and side edges thereof and lowering said display panel into said second cassette.

Regarding claims 4-11, claims 4-11 are allowable for the reasons given in claim 3 because of their dependency status from claim 3.

Regarding claims 16-23, claims 16-23 are allowable for the reasons given in claim 15 because of their dependency status from claim 15.

Regarding claims 40-47, claims 40-47 are allowable for the reasons given in claim 39 because of their dependency status from claim 39.

Regarding claims 52-59, claims 52-59 are allowable for the reasons given in claim 51 because of their dependency status from claim 51.

Regarding claims 64-71, claims 64-71 are allowable for the reasons given in claim 63 because of their dependency status from claim 63.

Regarding claims 74-82, claims 74-82 are allowable for the reasons given in claim 73 because of their dependency status from claim 73.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tanigawa, in US 5,915,957, discloses a method of transferring target substrate in semiconductor processing system.

Tsubota et al., in US 5,568,297, discloses a method of making a liquid crystal display device by measuring the liquid crystal layer thickness and adjusting.

Hiroki, in US 5,509,771, discloses a vacuum processing apparatus.

Wu, in US 5,372,471, discloses a single semiconductor wafer transfer method and manufacturing system.

Matsuzaki et al., in US 4,099,550, apparatus for filling liquid crystal into the cells of liquid crystal display devices.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (703) 305-1083. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382. Additionally, the following fax phone numbers can be used during the prosecution of this application (703) 872-9318 (for response before a Final Action) and (703) 872-9319 (for response after a Final Action).

Art Unit: 2879

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Msy 1/27/03
Mariceli Santiago
Patent Examiner
Art Unit 2879

Kenneth J. Ramsey
Kenneth J. Ramsey
Primary Examiner